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Appl. No. 09/944,891
Amdt. Dated August 14, 2006
Reply to Office Action of May 15, 2006

Docket No. IA00011
Customer No. 22917

Listing of Claims:

1-22. (Cancelled)

23. (New) A vehicle comprising:

a vehicle network communicatively coupling a plurality of devices within the vehicle, each device including an interface, and each device configured for an operation independent of the interface, wherein the coupling between devices includes at least one redundant path and the coupling defines multiple simultaneous communication paths; and

a router configured to determine at least one communication path from the multiple simultaneous communication paths.

24. (New) The vehicle of claim 23 wherein the vehicle network operates on a packet data protocol.

25. (New) The vehicle of claim 24 wherein the packet data protocol is selected from the group consisting of TCP/IP, ATM, INFINIBAND®, and RAPIDIO.

26. (New) The vehicle of claim 23 wherein the router determines at least one communication path from the multiple simultaneous communication paths responsive to network status.

27. (New) The vehicle of claim 23 wherein the router determines at least one communication path from the multiple simultaneous communication paths responsive to redundant paths.

28. (New) The vehicle of claim 23 wherein the router determines at least one communication path from the multiple simultaneous communication paths responsive to a loop, the loop having a loop data rate different from a path data rate of at least one other communication path.

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29. (New) The vehicle of claim 23 wherein at least one of the communication paths is a peer-to-peer communication path.

30. (New) The vehicle of claim 23 wherein the network is an active network, the active network including at least one node capable of performing custom operations on messages that pass through the at least one node, and wherein the active network does not require a central server or computing resources, and wherein each of the at least one node is aware of a content of the messages transported, and wherein the node participates in the processing and modification of the message.

31. (New) The vehicle of claim 23 wherein an architecture of the network is selected from the group consisting of array topology, multi-drop topology, and asymmetric topology.

32. (New) The vehicle of claim 31 wherein the architecture supports at least one of peer-to-peer communication, one-to-many broadcast, many-to-many broadcast, intra-network communications, inter-network communications, device to network communications, vehicle to vehicle communications, and vehicle to remote station wireless communications.

33. (New) The vehicle of claim 23 wherein the devices comprise a control-by-wire vehicle control system.

34. (New) The vehicle of claim 23 further comprising a no-go zone configured to carry at least one data packet to the exclusion of other data packets to provide assured communication capability between at least two devices associated with the no-go zone.

35. (New) The vehicle of claim 34 further comprising a steer-by-wire application, and wherein the steer-by-wire application is associated with a first device and a second device, the first device and second device connected by at least one no-go zone.

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36. (New) A system within a vehicle, the system comprising
a plurality of devices communicatively coupled by the system, each device including an interface, and each device configured for an operation independent of the interface, wherein the coupling between devices includes at least one redundant path and the coupling defines multiple simultaneous communication paths; and
a router configured to determine at least one communication path from the multiple simultaneous communication paths.
37. (New) The system of claim 36 wherein the router determines at least one communication path from the multiple simultaneous communication paths responsive to network status.
38. (New) The system of claim 36 wherein the router determines at least one communication path from the multiple simultaneous communication paths responsive to redundant paths.
39. (New) The system of claim 36 wherein the router determines at least one communication path from the multiple simultaneous communication paths responsive to a loop, the loop having a loop data rate different from a path data rate of at least one other communication path.
40. (New) The system of claim 36 wherein the system includes an active network, the active network including at least one node capable of performing custom operations on messages that pass through the at least one node, and wherein the active network does not require a central server or computing resources, and wherein each of the at least one node is aware of a content of the messages transported, and wherein the node participates in the processing and modification of the message.
41. (New) The system of claim 36 wherein an architecture of the system is selected from the group consisting of array topology, multi-drop topology, and asymmetric topology.

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42. (New) The system of claim 36 wherein the devices comprise a control-by-wire vehicle control system.

43. (New) The system of claim 36 further comprising a no-go zone configured to carry at least one data packet to the exclusion of other data packets to provide assured communication capability between at least two devices associated with the no-go zone.

44. (New) The system of claim 43 further comprising a steer-by-wire application, and wherein the steer-by-wire application is associated with a first device and a second device, the first device and second device connected by at least one no-go zone.

45. (New) A vehicle comprising:

a vehicle network communicatively coupling a plurality of devices within the vehicle; a plurality of devices communicatively coupled by the vehicle network, each device including an interface, and each device configured for an operation independent of the interface, wherein the coupling between devices includes at least one redundant path and the coupling defines multiple simultaneous communication paths; and

means for determining determine at least one communication path from the multiple simultaneous communication paths.